

Appln No. 09/627,573

Amdt date June 21, 2005

Reply to Office action of April 21, 2005

REMARKS/ARGUMENTS

Claims 1-29 and 31-32 will be pending in this application upon entry of the above amendments. Claims 1-9 and 26 have been amended. Claims 31 and 32 have been added. The amendments find full support in the original specification, claims, and drawings. No new matter has been added. In view of the above amendments and remarks that follow, reconsideration, reexamination, and allowance of the now pending claims 1-29 and 31-32 are respectfully requested.

Claims 1-9 and 26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-9 and 26, as amended, are now directed to a communications medium which is clearly statutory subject matter. Accordingly, withdrawal of the rejection under 35 U.S.C. 101 is respectfully requested.

Claims 10-16 and 18-25, and 27 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhang et al. (U.S. Patent No. 6,721,279). Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang et al. Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhang in view of Langberg et al. (U.S. Patent No. 5,852,630). Applicant respectfully traverses these rejections.

Independent claims 1, 10, 17, 18, and 28 all recite an impairment compensation sequence that includes "N phases," where the sequence is "organized to place at least one instance of each symbol from a predetermined set of symbols in each phase to allow detection of the potential impairments in each of the N

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phases." (Emphasis added). This is not taught nor suggested by Zhang.

In Zhang, "[a] set of N Ucodes are used for training symbols, where the first Ucode specifies the training symbol for the first DIL-segment; the second Ucode is used for the second DIL-segment, and so on." (Col. 6, lines 3-6) (Emphasis Added). Thus in Zhang, only one Ucode from the set of Ucodes is used for a particular DIL-segment. There is nothing in Zhang to teach or suggest that a particular DIL-segments include "N phases," and that "at least one instance of each symbol from a predetermined set of symbols" is placed "in each phase" as is required in claims 1, 10, 17, 18, and 28. (Emphasis Added). Accordingly, claims 1, 10, 17, 18, and 28 are now in condition for allowance.

Claims 2-9, 11-16, 19-27, and 29 are also in condition for allowance because they depend on an allowable base claim, and for the additional limitations that they contain.

Claims 31 and 32 are new in this application. Claims 31 and 32 are in condition for allowance because they depend on allowable claim 10. Claim 31 is also in condition for allowance because it recites that "the predetermined set includes two or more symbols." Claim 32 is also in condition for allowance because it recites that "the impairment compensation sequence includes a plurality of segments and each segment includes the N phases." None of the cited references teach or suggest these additional limitations.

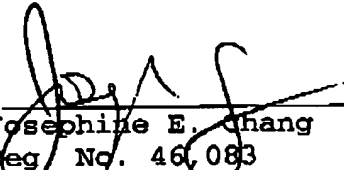
In view of the above amendments and remarks, reconsideration, reexamination, and an early indication of

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allowance of the now pending claims 1-29 and 31-32 are  
respectfully requested.

Respectfully submitted,  
CHRISTIE, PARKER & HALE, LLP

By

  
Josephine E. Chang  
Reg. No. 46,083  
626/795-9900

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